Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

- 1-8. (Canceled)
- 9. (Previously Presented) A honeycomb structure body comprising:

a plurality of honeycomb segments each having an outer wall, partition walls disposed in the outer wall, and a plurality of cells separated from each other by the partition walls and extending in an axial direction,

a bonding layer interposed between the plurality of honeycomb segments to unitarily bond the honeycomb segments, and

an intermediate layer interposed between the bonding layer and the honeycomb segments;

wherein pores having a diameter of 0.5 μm or more of the intermediate layer occupies 25% by volume or less of the whole volume of the intermediate layer.

- 10. (Previously Presented) A honeycomb structure according to Claim 9, wherein the intermediate layer contains 20% by mass of inorganic oxide.
- 11. (Previously Presented) A honeycomb structure according to Claim 9, wherein the intermediate layer contains a vitreous phase.
- 12. (Previously Presented) A honeycomb structure according to Claim 11, wherein chemical components of the vitreous phase include one or more kinds of alumina, silica, sodium, and potassium.
- 13. (Previously Presented) A honeycomb structure body according to Claim 9, wherein predetermined cells are plugged.
- 14. (Previously Presented) A honeycomb structure body according to Claim 9, wherein a catalyst is carried.

- 15-16. (Canceled)
- 17. (Previously Presented) A honeycomb structure according to Claim 10, wherein the intermediate layer contains a vitreous phase.
- 18. (Previously Presented) A honeycomb structure body according to Claim 10, wherein predetermined cells are plugged.